

reexamination are requested in view of the foregoing amendments and the comments made hereinafter.

Objection to the specification

The Examiner initially objects to the existence of the compounding step in the specification at the paragraph bridging pages 4 and 5. By today's amendment, the term "compounding" has been deleted from the specification.

The Examiner objects to the paragraph on page 8, line 7 to 11. The term "binding region" has today been deleted from that area of the specification.

The Examiner further objects to including the word "additional" in the paragraph bridging pages 7 and 8. By today's amendment, the term "additional" has been replaced with --addition- -.

Objection to the claims

The Examiner objects to claim 7, because of the term "to that of said optical fibres".

By today's amendment, the second occurrence of the phrase has been deleted.

Objection to claims 1 and 7-9 for indefiniteness

The Examiner rejects claims 1 and 7-9 under 35 U.S.C. 112, first paragraph for including the term "adjustment". By today's amendment to claims 1 and 7, the term compounding has been deleted and, as well, the term adjusting has been better defined throughout the claims. The Examiner is referred to the specification on page 8, the last paragraph which bridges to line 1 on page 9. The adjustment step wherein the refractive index of the low cross-linking density gel is adjusted to a value substantially equal to those of the various optical fibres is done by adjusting the refractive index of a transparent silicone oligomer as a primary agent. Reconsideration in this regard is requested.

Rejection to claims 1 and 7-9

The Examiner rejects claims 1, and 7-9 under 35 U.S.C. second paragraph in respect of the term "low".

The Examiner is referred to page 3, lines 16-19 wherein it seems clear that the gel used to provide cross-linking has a low density which results in the suppression of any light diffusion when the end faces of optical fibers are connected.

Today's amendment is accompanied by a marked up version of the specification and claims entitled "VERSION WITH AMENDMENTS TO INDICATE CORRECTIONS MADE".

Reconsideration is respectfully solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO INDICATE CHANGES MADE

1. ^{Four} [Three times amended] A method for producing a flexible and low density cross-linking gel for connecting optical fibres having a refractive index, said method comprising: adjusting the refractive index of a flexible silicone gel material to be that generally equal to the refractive index of said optical fibres to be connected, and a reaction step for causing the flexible silicone gel material adjusted in said ~~compounding~~ ^{adjusting} step by cross-linking said silicone gel material to an extent such that a gel having a low degree of cross-linking is produced for closely adhering to optical fibres; and wherein said ~~adjustment~~ ^{adjusting} step and said reaction step are carried out in a clean room.

7. ^{Four} [Three times amended] A method for producing a low cross-linking density gel used for connecting and for adhering to optical fibres, said method comprising:

adjusting the refractive index of a flexible silicone gel material to that of said optical fibres ~~to that of said optical fibers~~ to be connected, ~~a synthesizing step for synthesizing a composition by adding a cross-linking agent to said adjusted flexible silicone gel material; a filling step for filling said composition into a syringe; a sealing step for sealing said syringe; and a reaction step for heating said sealed syringe to cause said composition to undergo an addition reaction in a binding region where cross-linking density is low, thereby producing a low cross-linking density gel in said syringe allowing said close adherence to said optical fibres.~~

Page 7, line 21 to page 8, line 1.

~~Adjusting the refractive index by adding a primary agent and making cross-links by adding a binding agent is known to~~
A transparent flexible silicone gel material having a ~~specified refractive index as a primary agent is caused to~~ *these skilled in the art.*
~~undergo an addition reaction in a binding region where cross-~~
~~linking density is low,~~ with the result that the low-cross-
linking-density gel having a viscosity and a minimum fluidity can
be obtained. ~~As a result of the addition reaction in the binding~~
~~region where cross-linking density is low, free hydrogen atoms~~ *that provides a gel having a low cross-link density in the binding region.*
~~are advantageously absent since a total amount of active hydrogen~~
~~atoms contributed to the reaction.~~ *they are fully consumed during the reaction*

Page 8, lines 7-11.

A range of the cross-linking density was specified by
an amount of the cross-linking agent to be added, and a final
cross-linking density could be substantially precisely
controlled. The cross-linked binding region ^{agent} of the low cross-
linking density gel is in the range of 30% to 10% of the
theoretical ~~equivalent of the polyorganosiloxane containing~~
~~covalently bound hydrogen atoms.~~

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quantity for the primary agent to be fully cross-linked